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Contextualization of Physical and Sexual Assault in Male Prisons: Incidents and Their Aftermath

Nancy Wolff, PhD and Jing Shi, MS

Center for Mental Health Services and Criminal Justice Research, Rutgers, The State University of
New Jersey, New Brunswick, New Jersey

Abstract

Physical and sexual assault are part of the prison experience. Approximately 21% of male inmates are physically assaulted during a 6-month period. Sexual assault is estimated at between 2% and 5%. Although prevalence evidence is growing, less is known about circumstances surrounding and resulting from these incidents. This article presents an analysis of approximately 2,200 physical and 200 sexual victimizations reported by a random sample of 6,964 male inmates. Physical injury occurred in 40% of physical assaults and 70% of sexual assaults between inmates and in 50% of assaults perpetrated by staff. Emotional reactions to assaults were experienced by virtually all victims. Context information is vital in the development and implementation of prevention and therapeutic interventions.

Keywords

sexual assault; physical assault; inmate safety; prevention; correctional health

It is customary to think of prisons as violent environments. The epidemiologic evidence on prison violence is growing and becoming more precise both in its measurement (Beck & Harrison, 2007; Wolff, Shi, & Bachman, 2008) and point estimation (Beck & Harrison, 2007; Gaes & Goldberg, 2004; Jenness, Maxson, Matsuda, & Sumner, 2007; Wolff, Blitz, Shi, Bachman, & Siegel, 2006; Wolff, Blitz, Shi, Siegel, & Bachman, 2007). Point estimates of sexual assault during a 6-month period in adult male prisons are converging around two per 100 inmates, with rates about 10 times greater for physical assault. Although this evidence suggests a need for prevention and responsive therapeutic interventions, more information is needed on the context of such incidents before interventions can be effectively developed and implemented. To prevent assault, details are needed on when and where these incidents occur, who was involved, and what motivated the incident. In designing therapeutic interventions after assault occurs, information is needed on the physical and emotional injuries associated with the incidents. It is reasonable to expect that these details will vary by type of assault (physical vs. sexual) and perpetrator (inmate vs. staff).

There is very little contextual information available in the literature on incidents of physical and sexual assault inside prison. Most of the research on context has focused on the characteristics of the victims or aggressors and their sexual orientation, descriptions of the incidents, the emotional and psychological aftermath of assault, and precautionary behavioral changes. Only a minority of this research, however, was conducted in the past 10 years and

Address correspondence to: Nancy Wolff, PhD, Center for Mental Health Services Criminal Justice Research, Rutgers University, 30 College Avenue, New Brunswick, NJ 08901; nwolff@ifh.rutgers.edu.

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with samples of 300 or more inmates (Austin, Fabelo, Gunter, & McGinnis, 2006; Hensley, Tewksbury, & Castle, 2003; Jenness et al., 2007; Struckman-Johnson & Struckman-Johnson, 2006; Wolff & Shi, 2008, 2009). Herein we provide richer details on the logistical and interpersonal characteristics as well as behavioral consequences of more than 2,200 physical assault and 200 sexual assault incidents experienced over a 6-month period as reported by a random sample of approximately 7,000 male inmates housed in a single state correctional system in 2005.

Literature Review

Much of what is known about victimization inside prison was shaped by the rich qualitative studies conducted in the 1970s. On the basis of interviews with 21 male inmates, Carroll's (1974) study of race relations in prison found that aggressors of sexual assault were more likely to be Black and motivated by revenge and by a need to prove their "manliness," while the victims were more likely to be White, young, and physically underdeveloped. These findings were further developed by Toch (1977) in his seminal study of prison conditions. Toch's findings confirmed those of Carroll regarding the Black-on-White pattern of sexual assault among inmates but also contributed the following findings: (a) rates of prior emotional instability were elevated among victims, (b) potential victims survived by a "fight-or-flight" response, and (c) the fear and consequences of victimization were emotionally and psychologically traumatizing. Research on prison-based physical and sexual assault since the late 1970s has replicated and amplified these findings.

The second generation of prison-based research on victim characteristics focused primarily on race, physical size, vulnerability, and sexual orientation. Historically, White inmates have been found to be disproportionately targets or victims of sexual assault (Austin et al., 2006; Chonco, 1989; Hensley et al., 2003; Lockwood, 1980; Nacci & Kane, 1982; Struckman-Johnson & Struckman-Johnson, 2000, 2006; Struckman-Johnson, Struckman-Johnson, Rucker, Bumby, & Donaldson, 1996; Tewksbury, 1989; Wooden & Parker, 1982). Recent findings from a large-scale prison victimization study found that Black inmates were twice as likely to report being a victim of staff-initiated, compared to inmate-initiated, sexually aggressive behavior (Wolff, Shi, & Blitz, 2008). By contrast, non-Hispanic White inmates were equally likely to identify inmates and staff as aggressors but were more likely than their Black counterparts (4.9% vs. 3.8%) to be victimized by inmates. Hispanic inmates, like their Black counterparts, had above-average rates of staff-on-inmate victimization but, like their non-Hispanic White counterparts, also had above-average rates of inmate-on-inmate victimization. When rates of sexual victimization were combined by type of victimization and perpetrator, rates of victimization were roughly equal for Black (10.2%) and Hispanic (10.8%) groups but lower for the non-Hispanic White group (8.3%; Wolff et al., 2008). Inmates identified as Hispanic, compared to those identified as Black, did not have significantly different rates of sexual victimization, as shown by regression analysis. Non-Hispanic White inmates, however, in contrast with earlier research, were significantly less likely than their Black peers to experience abusive sexual contact by other inmates, and also were less likely than their Black counterparts to experience staff-on-inmate sexual victimization (Wolff, Shi, Blitz, & Siegel, 2007). Similar findings based on the California prison system were reported by Jenness et al. (2007).

Compared to sexual victimization, physical victimization has received less research attention. Although the Black-on-White phenomenon was documented in the first generation of physical victimization research (Bowker, 1980; Irwin, 1980), no consistent racial difference in physical victimization has been found in subsequent studies. Wooldredge (1994), in a study of 231 inmates residing at a single prison, found that Hispanics were significantly more likely than Whites to report being a victim of personal crime. In a subsequent study by Wooldredge (1998) of 581 inmates from three Ohio prisons, race did not significantly predict physical

victimization after controlling for income and education. As with sexual victimization, Wolff et al. (2008) found elevated rates of inmate-on-inmate physical victimization among non-Hispanic White (27.6%) and Hispanic (22.0%) inmates compared to Black (17.9%) inmates, but significantly higher rates of staff-on-inmate physical victimization were found for Black (25.5%) and Hispanic (29.5%) inmates, compared to non-Hispanic White (19.4%) inmates.

Other personal characteristics found to distinguish targets or victims of sexual violence inside prison are physical size, vulnerability, and sexual orientation. In general, potential or actual victims of sexual assault have been found to have more diminutive or effeminate physical appearances. They are more likely to be smaller than their abuser (Lockwood, 1980) or small in stature (Chonco, 1989; Jenness et al., 2007; Tewksbury, 1989), physically attractive and/or with more feminine features (Chonco, 1989; Lockwood, 1980), and young (Austin et al., 2006; Chonco, 1989; Nacci & Kane, 1982; Struckman-Johnson et al., 1996; Tewksbury, 1989). Targets or victims of sexual assault also have the appearance of being weak and emotionally vulnerable (Bowker, 1980; Chonco, 1989; Lockwood, 1980) or have a mental illness (Austin, et al., 2006; Jenness, et al., 2007; Wolff, Blitz, & Shi, 2007; Wolff, Shi, et al., 2007). Inmates with any mental disorder were significantly more likely to report an incident of sexual victimization over a 6-month period (Wolff, Blitz, & Shi, 2007). More specifically, those diagnosed with depression, anxiety, or posttraumatic stress disorder (PTSD) were found to have roughly double the likelihood of an inmate-on-inmate sexual assault or abusive sexual contacts. Similarly, rates of abusive sexual contact increased 50% for inmates with prior treatment for schizophrenia or bipolar disorder compared to inmates without prior treatment for mental disorders (Wolff, Shi, et al., 2007).

Personal characteristics of age and mental health status also have been found to predict physical victimization inside prison. Younger inmates are significantly more likely to be victims of personal and property crime (Wolff & Shi, 2008; Wooldredge, 1994, 1998). Kerbs and Jolley (2007) found that inmates aged more than 50 years were victimized in multiple ways, including physical assault and property theft, by younger inmates.

Sexual orientation also has been found to distinguish inmates who are at risk for or have experienced sexual victimization. Nonheterosexual inmates reported higher rates of sexual assault than their heterosexual counterparts (Bowker, 1980; Hensley et al., 2003; Jenness et al., 2007; Nacci & Kane, 1982; Struckman-Johnson & Struckman-Johnson, 2006; Wooden & Parker, 1982). Transgender inmates are particularly vulnerable in prison settings. Jenness et al. (2007) report prevalence rates of sexual assault for transgender inmates at 41%, compared to 2% for a random sample of inmates in the same California prisons.

Although most of the victimization literature has focused on the characteristics of the victims/targets, some researchers have recently investigated the characteristics of these incidents (Austin et al., 2006; Jenness et al., 2007; Struckman-Johnson & Struckman-Johnson, 2000, 2006; Struckman-Johnson et al., 1996; Wolff & Shi, 2008, 2009), their emotional and psychological aftermath (Struckman-Johnson & Struckman-Johnson, 2006; Struckman-Johnson et al., 1996; Wolff & Shi, 2008, 2009), and precautionary behavior (McCorkle, 1992).

Incidents of sexual victimization have been described in terms of where and when they occurred, how they were initiated, type of specific acts that occurred, and staff involvement. In general, sexual assaults occur at all times of day and in a variety of locations, but they are most likely to occur at night (Austin et al., 2006; Jenness et al., 2007) and take place in dorms and cells as well as bathrooms (Austin et al., 2006; Jenness et al., 2007; Struckman-Johnson & Struckman-Johnson, 2006).

Four recent studies describe the incidents of male sexual victimization inside prison. The study by Struckman-Johnson and Struckman-Johnson (2006) was based on a mail survey sent to a target sample of 7,032 male inmates in 7 facilities located in 5 Midwestern states, of which 1,788 usable surveys were returned (25% response rate). Of those responding, 298 male inmates responded “yes” to the sexual coercion question. They reported multiple sexual assaults; the involvement of multiple (3, on average) perpetrators; aggressors that were known to the victims; the use of multiple tactics to initiate contact, with the most common tactic being a threat of harm; same-sex perpetrators; and at least 1 negative emotional consequence, typically feeling distrust, nervousness, social apprehension, worried about recurrence, and depression.

Two unpublished state-based studies were recently completed. Jenness et al. (2007), focusing on male inmates in the California prison system, was based on a randomly selected sample of 322 male inmates (85% response rate) and a purposive sample of 39 transgender inmates (94% response rate) held in 6 of the 30 male state prisons. Respondents were interviewed face-to-face. The respondents reporting sexual assault incidents indicated that these incidents were most likely to occur in personal spaces (e.g., dorms or cells) and during the evening hours; not involve weapons; be described as sex-related, not gang-related; and result in follow-up medical attention if requested by the victim. Austin et al. (2006) used officially reported sexual assault data (1,938 incidents reported over a 32-month period) to describe the incidents of sexual assault inside the Texas prison system. In this study, officially reported sexual assaults most often involved White victims and Black assailants, were situated in the inmate's cell, occurred between 6 a.m. and 6 p.m., and did not involve a weapon.

Wolff and Shi (2008) explored the types of sexual victimization experienced by approximately 500 male inmates over a 6-month period. In this study, although sexual victimization rarely occurred, when it did, it was more likely to involve abusive sexual contacts (i.e., intentional touching of sexually specific areas of the body) than nonconsensual sex acts (i.e., sexual assault or rape). However, incidents of inappropriate touching were reported less frequently (28%) to authorities than incidents involving nonconsensual sex acts (37% to 50%).

Physical victimization is categorized as personal (e.g., assault) or property (e.g., theft; Wooldredge, 1994, 1998). Compared to personal victimization, rates of property victimization are higher (Wooldredge, 1998). More recently, Wolff and Shi (2009) delineated 7 specific types of physical victimization. The most common types experienced by male inmates in this study were theft (24.3%), being threatened or harmed with knife or shank (12.4%), and being slapped, hit, kicked, or bit (10.2%). Physical victimization was infrequently reported by inmates to the authorities, although reports increased if the perpetrator was a staff person or if the incident involved being beat up. The majority of these victims reported experiencing 1 or 2 types of physical victimization perpetrated by other inmates over a 6-month period, most commonly theft, harmed with shank, and slapped, kicked, or hit.

Physical and sexual victimization have psychological consequences as first reported by Carroll (1974) and Toch (1977). More contemporary research amplifies these earlier findings. The multidimensional impact of prison-based sexual assault on physical, emotional, and psychological well-being is summarized by Knowles (1999). This was also explored by Struckman-Johnson and colleagues (Struckman-Johnson et al. 1996; Struckman-Johnson & Struckman-Johnson, 2006), whose study confirmed the negative effects of rape identified by Knowles. Particularly, immediately following a severe incident, victims were highly distressed and most experienced negative feelings, specifically distrust of others, social nervousness, and depression. Wolff and Shi (2008) report that inmates experiencing sexual victimization also were more likely to report feeling mostly or very unsafe across a variety of potentially harmful situations and prison areas. The percentage of male inmates reporting feeling unsafe increased

if they were sexually victimized by staff and/or experienced concurrent physical victimization (by other inmates or staff). Similarly, inmates who experienced physical victimization also reported feeling less safe from various types of harm and in assorted areas of the prison during the 6 months, compared to their counterparts who did not report victimization. Those feeling the least safe in prison were male inmates who reported being physically victimized by other inmates and staff (Wolff & Shi, 2008).

Victims of sexual and physical assault frequently change their behavior in the aftermath of the attack (McCorkle, 1992). They often engage in fight-or-flight precautionary behavior (Toch, 1977). The more passive aspect of this scenario is “flight” and is characterized by reclusive behavior either with or without protective custody or administrative segregation, avoiding persons and places that are perceived risky, or giving in to aggressors to minimize harm (Greenfield, 1980; Lockwood, 1980). “Fight” involves countervailing aggression and may include carrying a weapon, associating with a gang, and either fighting more or building up the capacity to fight (Irwin, 1980; Lockwood, 1980). In a study of precautionary behavior of 300 male inmates, McCorkle (1992) found that inmates engaged in precautionary behavior (particularly, staying to themselves) to minimize the risk of a violent encounter. Moreover, building fight potential was reported by a significant percentage of inmates. They reported “getting tough to avoid victimization” (70%), “lifting weights” (47%), and “keeping a weapon” (25%) to deter potential aggression.

Over the past 40 years, a variety of studies have provided context to incidents of sexual and physical victimization inside adult male prisons. We add to this literature by using best-practice methods to survey a representative 40% sample of inmates residing in all prisons in a state system using audio-computer-assisted survey interviews to collect and analyze the assault experiences of 7,000 inmates over a 6-month period (similar sampling and survey methodology was used in the national study of rape in prisons conducted by the Bureau of Justice Statistics, Beck & Harrison, 2007). Our survey questions probed the victimization incident that “bothered” the inmate the most and, for this incident, elicited information on the nature of the victimization, its logistical and interpersonal context, and its resulting injuries and ensuing emotional reactions.

Methods

Sampling

A sample of 6,964 people was drawn from the population of inmates housed at 12 male adult prisons operated by a single state ($N = 21,148$). Excluded were inmates younger than 18; in administrative (prehearing) custody, in detention, on death row; or too sick to participate. Also excluded were inmates residing in halfway houses or off-site at the time of the survey and inmates living in a sex-offender treatment facility. With these exclusions, 18,726 adult inmates (88.5% of the entire population) were eligible. Subjects were recruited and data were collected from June 1, 2005, through August 31, 2005.

Enough time inside the facility was requested to collect a 40% probability sample from the general population ($n = 17,894$), typically requiring 2 to 5 days. A 66% random sample of inmates was selected in advance with the expectation of a 60% response rate, yielding the expected 40% sample within the allotted time at the facility. Sampling rates across facilities ranged from 26% to 45%, with a mean rate of 37% ($SD .054$). Recruitment at the facility with a 26% sample was prematurely terminated because of a lockdown situation (unrelated to the research). Four facilities had specialized segregation units (for inmates with behavioral infractions). These units housed 832 inmates and a 10% random sample completed the survey through direct interviews (these individuals have limited movement and were denied access to areas where the researchers were located).

Procedures

The recruitment protocol, consent procedures, and consent form were approved by the appropriate university and correctional agency research review boards and committees. Subjects were informed about the survey through their inmate liaison representatives and an informational video, which was played multiple times on the inmate television channel during the week before the survey. All interested inmates, by unit, were moved to the survey area to hear a 10-minute presentation about the survey. Approximately 12,000 inmates attended the introductory sessions (not all consented participants were able to complete the survey in the time period the researchers had inside the facility). To reduce any overt coercion, no compensation was paid to subjects for their participation. Those participating in the study were offered an option to request a follow-up mental health visit if distressed by questions elicited by the survey.

The survey, available in English and Spanish, was administered using an audio-computer-administered survey instrument (CASI). Respondents, sitting at a laptop computer in a private location, heard and read the questions and responded via mouse. Thirty computer stations were available and researchers provided assistance as needed. Face-to-face interviews were conducted with 112 men (1.6%). Of these respondents, 85 (76%) were housed in administrative segregation. Direct interviews were conducted with another 27 subjects because they were either intimidated by the computer or in the infirmary or specialized mental health unit. The majority (90%) of these interviews were conducted by 2 interviewers. All interviewers were trained and followed a scripted protocol.

Participants

Of the 18,726 eligible to participate, a total of 6,964 men aged 18 or older (mean age 34, $SD = 7.9$) from male general population prisons were recruited and completed the survey. Sample bias was tested using demographic data from the information system of the prison system. Of the general population sample, 88.5% of subjects were classified as non-White (mean age 33.3), which is roughly equivalent to the general male prison population (80.1% are non-White with a mean age of 34.3). The percentage of the survey sample that was Hispanic (inclusive of White and non-White) was similar to the male prison population as a whole (15.7% vs. 14.9%) and the ages of that portion of the sample were comparable as well (32.0 vs. 32.5).

Instruments

The questions regarding sexual and physical assault were adapted from the National Violence Against Women and Men Survey (Tjaden & Thoennes, 2000). Sexual assault was measured using 7 questions about specific types of sexual victimization over the past 6 months distinguished by perpetrator type (inmate or staff). Five behavior-specific questions about physical victimization by perpetrator were used to measure physical assault over a 6-month period. An affirmative response to any of the physical or sexual assault questions prompted 20 follow-up questions about the incident. If more than one question about sexual or physical assault received an affirmative response, respondents were asked to identify the incident that bothered them the most, and the 20 follow-up questions then pertained to this incident.

Analysis

The Pearson chi-square test was used to determine the significant differences between physical and sexual incidences. When the expected counts are less than five, Fishers exact test is used instead of Pearson chi-square test for 2×2 tables.

Results

The tables discussed in this section describe the most bothersome incidents of physical and sexual victimizations reported by 6,964 male respondents. Nearly 32% of these inmates reported at least one physical assault and approximately 3% reported at least one sexual assault during the 6-month period. Of those reporting an incident, each respondent reported details on one incident of each type of victimization (physical and sexual) and perpetrator (inmate and staff) that he experienced during that period (with a maximum of 4 incident types per respondent). For respondents reporting multiple physical or sexual incidents per perpetrator type, they were asked to identify the physical and/or sexual incident that bothered them the most. For each incident identified, respondents were asked 20 contextual questions about the incident.

Looking first at Table 1, 2,207 inmates reported experiencing physical assault and 201 reported sexual assault. On average, the victims, independent of the type of assault, were in their early 30s, Black, had spent 2 years at the prison they were currently in, had 4 to 5 years left on their current sentences, and had spent roughly 8 years in prison since turning 18. Mental health problems were more frequently reported by victims of sexual assault than victims of physical assault.

Regardless of perpetrator type, the most common forms of physical assault were being threatened with a weapon and being hit (Table 2). As shown in Table 3, inmate-on-inmate sexual assault most often involved forced, attempted, or coerced anal or oral sex. When sexual assault involved a staff perpetrator, nearly 30% of the victims reported being coerced into sexual acts in an effort to protect themselves from future harm.

Table 4 describes the logistical context of the most bothersome assaults by perpetrator type. The overall patterns of timing and location were significantly different between physical and sexual victimization incidents. Physical assaults, regardless of perpetrator, were most likely to occur between noon and midnight (with greatest likelihood between noon and 6 p.m.) and occur in the inmates cell or yard (inmate-perpetrator only). For sexual assaults, the inmates cell was the most likely place for a sexual assault in general, and inmates were at greatest risk of sexual assault by other inmates between 6 p.m. and midnight and by staff between noon and 6 p.m. Relatively speaking, however, sexual victimizations were more likely than physical victimizations to occur between midnight to 6 a.m. Roughly 1 in 6 sexual assaults occurred between 6 a.m. and midnight.

The interpersonal context of inmate-on-inmate physical and sexual assault incidents shared some commonalities (Table 5). Specifically, these incidents most often involved attackers with a gang affiliation and with whom the victim was acquainted, and roughly half of the incidents involved the use of a weapon, typically a knife or shank. Most often the victims did not know why they were attacked. Of those who knew why, approximately one third reported that the incident was motivated by race or ethnicity.

Significant differences also exist between the interpersonal context of physical and sexual assaults perpetrated by other inmates. First, compared to incidents of physical assault, episodes of sexual assault perpetrated by other inmates were more likely to not be a first-time offense by that particular perpetrator, not involve other inmates or staff, and, when motivation was known, it was most likely attributed to sexual orientation or mental illness/disability of the victim.

Patterns of similarities and differences between staff-on-inmate physical and sexual assaults are comparable with a few notable deviations. Incidents of physical victimization were more likely to involve staff known by sight or reputation, whereas occurrences of sexual

victimization involved staff members who were casual acquaintances. Staff perpetrators were less likely to have known gang affiliations. Weapons were less likely a part of staff-perpetrated incidents but when they were, they most likely involved guns or Tasers. Finally, while only 30% of victims of staff assaults knew why they were attacked, half of those were reportedly racially motivated.

The consequences of physical and sexual victimization are shown in Tables 6 through 10. As shown in Table 6, physical injuries are more likely from inmate-on-inmate sexual assaults, compared to inmate-on-inmate physical assaults, but when physical injuries do occur in either type of incident, they are most likely to involve bruises, cuts, and scratches. Approximately one fourth of the incidents of sexual assault result in injuries to the anus or throat. Internal injuries and being knocked unconscious are significantly more likely to occur in incidents of sexual assault among inmates than in incidents of physical assault among inmates. One third of the incidents of physical and sexual assault resulted in medical attention and about one fifth of the incidents involving medical attention required hospitalization outside the prison.

The vast majority of victims reported experiencing emotional reactions as a consequence of these assaults. For those physically assaulted by other inmates, the most common emotional reaction was anger (68.3%). Non-anger emotional reactions were more pervasive when the incident involved sexual assault. Roughly one half of the victims of sexual assault reported feeling depression (53.1%), anger (49.0%), difficulty sleeping (49.0%), nightmares (45.9%), and fear (44.9%).

Staff-perpetrated physical and sexual assaults were equally likely to result in a physical injury, with the types of injuries following the same pattern as inmate-perpetrated assaults. Medical attention was sought by a significant minority of victims. Emotional reactions as a consequence of staff-perpetrated assaults were similar to the pattern found for inmate-perpetrated assaults.

As shown in Table 7, emotional responses were more likely to be reported among those inmates who reported physical injuries as a result of their physical victimization, while no differences were found among those with and without physical injuries as a consequence of a sexual victimization incident (in part because of the smaller sample size for sexual incidents). The vast majority of inmates reporting any type of victimization, independent of perpetrator type, indicated that they experienced at least one emotional response. The number of emotional responses was greater for those reporting sexual victimization compared to those reporting physical victimization, as well as for those reporting a physical injury compared to those not reporting a physical injury during a physical victimization incident.

Flight, as a precautionary behavior, was typical among those who experienced inmate-perpetrated assault (see Table 8). Isolating behaviors, such as keeping to oneself and avoiding certain inmates or areas, were the most common. Victims of inmate-perpetrated sexual assault, compared to victims of inmate-perpetrated physical assault, were significantly more likely to join a gang, agree to the demands of their attackers, request protective custody, or transfer to another facility. By contrast, victims of inmate-perpetrated physical assault were significantly more likely to keep to themselves.

Tables 9 and 10 show the interaction between precautionary behavior and the physical and emotional consequences of victimization. In general, inmates reporting a physical injury as a consequence of assault were more likely than their counterparts not experiencing physical injury to engage in all types of precautionary behavior (Table 9). Inmates experiencing physical injuries were particularly more likely to request a transfer to another facility. Inmates sustaining physical injury as a consequence of physical or sexual victimization were also more likely to report that they agreed to demands of their attacker or joined a gang in an effort to protect themselves compared to those not reporting physical injuries. Inmates reporting any type of

emotional response as a consequence of victimization, compared to those not reporting any emotional response, more frequently reported that they engaged in some form of precautionary behavior (Table 10). Note, particularly, that more than half of inmates reporting no emotional response as a consequence of inmate-on-inmate sexual victimization or any form of staff-on-inmate victimization reported that they did not change their precautionary behavior as a consequence of the incident. In contrast, the vast majority of those inmates who experienced an emotional reaction to victimization reported changing their behavior in some way and usually in ways considered passive, such as avoiding persons or places deemed risky.

Discussion

Generally, but more richly, our findings support the first and second generation of research describing the interpersonal and logistical context and consequences of physical and sexual assault inside adult male prisons. People inside prison experience victimization, with physical assault being more common than sexual assault. Both types of assault have serious short- and long-term implications for physical and emotional well-being.

We found that assaults occur throughout the day and night, but not with equal risk. Physical assault is most likely to occur midday, while the likelihood of sexual assault is highest among inmates between 6 p.m. and midnight and between inmates and staff from noon to 6 p.m. The areas of greatest risk for assault between inmates include cells and congregate spaces, such as the yard or recreational areas (for physical assault). Staff-perpetrated assaults are most likely to occur in inmate cells and staff-only areas, including bathrooms and offices. Assaults between inmates are likely to involve gang-affiliated perpetrators who are at least casually acquainted with their victims, and roughly half of the time the incidents involved the use of a weapon. In general, only a minority of victims reported knowing why they were assaulted. When asked if their assault was based on racial or ethnic bias, one third of victims assaulted by other inmates and approximately one half of victims assaulted by staff reported that this was the case. Sexual orientation and mental illness/disability of the victim were identified as motivating the sexual assault of one-quarter of victims who were assaulted by other inmates.

Physical injury occurred in 40% of physical assaults and 67% of sexual assaults between inmates and in roughly half of assaults perpetrated by staff. Most injuries that resulted in treatment were responded to by the medical unit of the prison. However, of those injuries reported to the medical unit, 22% of inmate-on-inmate and 15% of staff-on-inmate physical assaults required hospitalization outside the prison. Emotional reactions to assaults were experienced by virtually all victims; anger was most frequently felt by those physically assaulted, while emotions associated with trauma, such as depression, flashbacks, nightmares, and fear were reported by victims of sexual assault. Most victims protected themselves by engaging in flight precautionary behaviors, including avoiding certain people and areas and, more generally, isolating themselves from others. Physical injuries were more likely to contribute to emotional responses and to precautionary behavior among inmates experiencing victimization. Similarly, inmates reporting an emotional response to their experience were more likely to engage in precautionary behavior in the aftermath of the incident, compared to victims who did not report an emotional response.

Before relating our findings to prevention and therapeutic interventions, several limitations are noteworthy. First, several types of bias are possible. Biased reporting about physical and, more particularly, sexual assault is likely because of the shame or stigma associated with victimization. Audio-CASI is the most reliable method for collecting information about topics that involve shame or stigma. Participation or response bias would occur if subjects misrepresented the true experiences of the inmate population. We guarded against these types of biases during the consent process by stressing the importance of accurate reporting and its

impact on the legitimacy of the data and study. To minimize systematic response bias, we surveyed respondents by units over a 2- to 4-day period. Staff did not have access to the survey questions. The victimization questions were nested deep into a general survey focusing on the quality of prison life.

Second, our estimates are based on a single state correctional system in the northeast. Consistent with the literature, we found variation in sexual and physical victimization rates by facility. The level and variation in prevalence rates estimated in our study were replicated in a national study of male rape conducted by the Bureau of Justice Statistics (Beck & Harrison, 2007). Both of these studies used probability sampling and identical survey questions and audio-CASI methodology. At least preliminarily, findings on the contextual incidents of sexual assault in prisons within the California and Texas correctional systems are consistent with our findings for a northeastern state (Austin et al., 2006; Jenness et al., 2007).

Several practice questions arise from our findings. First, what prevention interventions could be developed by prison administrators and implemented by correctional staff to make the prison environment less conducive to physical and sexual victimization? Prevention recommendations typically stress segregation by race or risk characteristics (i.e., reliance on better classification systems), the use of specialized units or single cells, improved officer training (Knowles, 1999; Wortley, 2002), and tougher prosecution (Human Rights Watch, 2001). Our findings suggest that, at a minimum, a universal prevention intervention is required because assaults take place in all areas and at all times in a prison. However, to achieve cost-effectiveness, these interventions need to be selectively targeted to areas and times of day associated with greatest risk.

Part of the universal intervention would require developing and implementing a zero-tolerance policy for assault, and would include specialized training for and supervision of correctional staff (analogous to de-escalation training for police officers) and education programming for inmates (analogous to HIV/AIDS education programming). To reinforce zero tolerance, rigorous procedures need to be developed and consistently implemented to investigate and prosecute physical and sexual assaults. Prosecution efforts would be combined with a reliable and comprehensive practice of collecting evidence on assault incidents, especially those resulting in physical injury treated by the medical unit. By using the evidence base, "hot spots" could be identified for selective intervention, such as additional supervision, retraining or relocating staff, installing cameras, or relocating inmates. Keeping the environment safe for inmates would also include putting those most at risk (e.g., those with mental illness, mental disabilities, or bisexual, transsexual, or homosexual orientations) in single cells or protective units.

Another practice-related question concerns therapeutic intervention postassault. What is the best practice for treating assault after it occurs? Here the response depends on the type of assault. Physical assault may result in acute to serious physical injuries and it most likely, as our findings indicate, generates anger directed at other inmates and/or staff. Producing angry inmates is inconsistent with a safe prison environment. For this reason, any intervention for victims and perpetrators of physical assault would include anger management programming that builds the inmate's and staff's conflict negotiation and resolution skills, supplemented with individual therapy to process and defuse anger.

Sexual assault victims, like physical assault victims, require medical attention (inclusive of testing for sexually transmitted diseases) and the processing of a rape kit. Procedures for processing sexual assault inside prison should be equivalent to community-based procedures. Our findings indicate that sexual assault engenders affect responses that include depression, nightmares, difficulty sleeping, anger, fear, crying, and shock. These types of responses are

common among trauma victims. Although victims internalize trauma differently, the most typical responses are dissociation, affect dysregulation, chronic characterological changes, somatization, and hyperarousal (Harris & Fallot, 2001; Kluft, Bloom, & Kinzie, 2000; Rosenberg, Mueser, Friedman, & Gorman, 2001). These responses are amenable to intervention.

In recent years, a variety of integrated, skill-based, gender-sensitive approaches have been developed to promote trauma recovery (Hien, Cohen, Miele, Litt, & Capstick, 2004; Najavits, Sonn, Walsh, & Weiss, 2004; Rosenberg et al., 2001). There is evidence from quasi-experimental or small pilot studies, often without randomization, suggesting their effectiveness (Jennings, 2004). The best known models are the Trauma Recovery and Empowerment Model (TREM; Fallot & Harris, 2002) and Seeking Safety (Najavits, 2002, 2007). Seeking Safety yielded net positive outcomes in correctional settings in both a pilot study (Zlotnick, Najavits, Rohsenow, & Johnson, 2003) and in a randomized controlled trial (Zlotnick, Johnson, & Najavits, 2008). Similar positive evidence is growing for the efficacy of TREM (McHugo et al., 2005) in both male and female samples. Implementing best practices for trauma treatment should be the standard used to evaluate the response of prisons to trauma resulting from physical and sexual assault.

To ensure that correctional departments are sufficiently motivated toward reducing assault inside the walls, accountability standards and benchmarks are required. Grading prisons in ways analogous to public schools (see New York Department of Education) and hospitals (Hibbard, Stockard, & Tusler, 2005; Marshall, Shekelle, Letherman, & Brook 2000) would structure incentives to encourage the creation of safe prisons. This would include, but not be limited to, publicizing prison grades on safety, factoring progress toward benchmarks for reducing assaults into the performance evaluations for administrative and correctional staff, and holding correctional departments and prison administrators accountable for not taking appropriate steps to change the environment in ways that reduce the risk of physical and sexual assault.

Prevention dollars, if appropriately targeted, save therapeutic intervention dollars. To capture these “savings,” however, inmate safety must be a top priority. Prioritizing safety requires the establishment of reasonable standards of safety and safety benchmarks for prisons, followed by measuring performance on safety accurately and reliably and reporting performance data in ways consistent with standards of transparency and accountability. Safe, humane prisons can be expected to yield immediate savings by avoiding the costs of treating the consequences of physical and sexual assault, and longer term savings if the people leaving prison are less impaired with emotional and psychological difficulties created by the prison environment. Researchers can facilitate this process by developing valid and reliable methods and instruments for measuring safety performance in prison settings and by developing, testing, and disseminating prevention and therapeutic interventions. With this evidence base, prison safety becomes more transparent and more likely.

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Table 1

Characteristics of Physical and Sexual Assault Victims, 2005

Characteristics	Sample of Male Victims	
	Physical Assault (<i>n</i> = 2,207)	Sexual Assault (<i>n</i> = 201)
Demographic characteristics		
Age, mean years (<i>SD</i>)	31.6 (8.6)	32.0 (9.6)
Race (%)		
White	16.7	14.1
Black	56.7	53.8
Other	26.5	32.2
Ethnicity (%)		
Hispanic	22.4	22.5
Incarceration characteristics		
Time at current facility, mean years (<i>SD</i>)	2.1 (4.5)	2.3 (3.7)
Life sentence (%)	5.9	7.5
Time left on current sentence, ^a mean (<i>SD</i>)	4.0 (6.8)	4.7 (9.9)
Time incarcerated from age 18, mean (<i>SD</i>)	7.7 (7.4)	7.8 (8.4)
Clinical characteristics (%)		
Mental health problem	37.5	54.7
Substance abuse	26.5	22.8
Head trauma	7.9	9.1
Chronic physical condition	28.9	32.8

^aTime left on current sentence excludes those with a life sentence.

Table 2

Type of Physical Assault by Perpetrator, 2005

Perpetrator of Assault by Type of Assault	Percent Experiencing Type of Assault ^a
<i>Inmate-on-Inmate Physical Assault (n = 1,315)</i>	
Slapped, hit, kicked, or bit you?	16.9
Choked or attempted to drown you?	3.8
Hit you with some object with the intent to harm?	9.2
Beat you up?	4.5
Threatened or harmed you with a knife or shank?	39.2
<i>Staff-on-Inmate Physical Assault (n = 1,466)</i>	
Slapped, hit, kicked, or bit you?	20.4
Choked or attempted to drown you?	5.3
Hit you with some object with the intent to harm?	8.7
Beat you up?	13.9
Threatened or harmed you with a knife or shank?	24.6

^a Percents do not add to 100 because the most bothersome incident was not one of the five assault-related questions.

Table 3

Type of Sexual Assault by Perpetrator, 2005

Perpetrator of Assault by Type of Assault	Percent Experiencing Type of Assault ^a
<i>Inmate-on-Inmate Sexual Assault (n = 106)</i>	
Made you have sex by using force or threatening to harm you or someone close to you?	7.6
Made you have oral sex by using force or threat of force?	8.5
Made you have anal sex by using force or threat of force?	14.2
Put fingers or objects in your anus against your will or by using force or threat of force?	7.6
Made you put fingers or objects in someone else's anus against your will or by using force or threats?	1.9
Attempted to make you have oral or anal sex against your will but penetration did not occur?	14.2
Required you to perform sexual acts as a way to protect yourself from future harm?	13.2
<i>Staff-on-Inmate Sexual Assault (n = 138)</i>	
Made you have sex by using force or threatening to harm you or someone close to you?	8.7
Made you have oral sex by using force or threat of force?	10.1
Made you have anal sex by using force or threat of force?	8.0
Put fingers or objects in your anus against your will or by using force or threat of force?	5.1
Made you put fingers or objects in someone else's anus against your will or by using force or threats?	5.1
Attempted to make you have oral or anal sex against your will but penetration did not occur?	10.1
Required you to perform sexual acts as a way to protect yourself from future harm?	28.3

^aPercents do not add to 100 because the most bothersome incident was not one of the seven sexual-assault-related questions.

Table 4

Logistical Context of Physical and Sexual Assaults by Perpetrator, 2005

Logistical Characteristics	Victims of Assault	
Inmate-on-Inmate Assaults	Physical (<i>n</i> = 1,315)	Sexual (<i>n</i> = 106)
Time of day (%) ^a		
6 a.m. to noon	20.0	16.7
Noon to 6 p.m.	43.7	28.1
6 p.m. to midnight	30.7	38.5
Midnight to 6 a.m.	5.7	16.7
Location of assault (%) ^a		
Your cell	35.7	46.5
Another inmate's cell	4.5	8.1
Shower	2.3	12.1
Yard or recreational area	30.4	11.1
Dining area	7.4	2.0
Work site	2.9	1.0
Other (e.g., library, corridor, other)	17.0	19.2
Staff-on-Inmate Assaults	Physical (<i>n</i> = 1,466)	Sexual (<i>n</i> = 138)
Time of day (%) ^a		
6 a.m. to noon	22.5	24.0
Noon to 6 p.m.	44.1	31.8
6 p.m. to midnight	28.9	26.4
Midnight to 6 a.m.	4.6	17.8
Location of assault (%) ^a		
Your cell	50.0	38.3
Another inmate's cell	1.9	3.5
Shower	0.9	7.0
Yard or recreational area	13.3	4.3
Dining area	10.5	6.1
Work site	1.1	0.9
Staff office/bathroom	15.5	19.1
Other (e.g., library, corridor, other)	6.8	21.8

Percents are based on valid numbers.

^a Statistically significant difference between physical and sexual assault using chi-square test ($p < .05$).

Table 5

Interpersonal Context of Physical and Sexual Assaults by Perpetrator, 2005

Interpersonal Context Characteristics		Victims of Assault	
Inmate-on-Inmate Assaults	Physical (n = 1,315)	Sexual (n = 106)	
First time person attacked you (% no) ^a	35.4	60.6	
Knew the attacker (% yes)	43.3	45.9	
Knew attacker by sight or reputation only (% of yes)	37.0	31.1	
Attacker was a casual acquaintance	49.8	55.6	
Knew attacker well	13.2	13.3	
Attacker was a member of a gang (% yes)	65.2	62.6	
Others present during assault (% yes) ^a	68.6	45.9	
Other inmates but no staff (% of yes)	76.1	73.3	
Other inmates and staff	19.2	20.0	
Staff but no other inmates	4.7	6.7	
Knew why you were attacked (% yes)	40.1	41.8	
Was attack motivated because of your ... (% yes)			
Race or ethnicity (% of yes)	31.9 ^b	36.5	
Religion	14.0	19.8	
Sexual orientation ^a	3.8	26.0	
Mental illness or disability ^a	8.2	22.9	
Weapon was involved in the attack (% yes)	45.5	52.5	
Knife or shank (% of yes)	62.5	57.7	
Bat or board	2.6	9.6	
Some other object (e.g., razor, can top, other)	34.9	32.7	
Staff-on-Inmate Assaults	Physical (n = 1,466)	Sexual (n = 138)	
First time person attacked you (% no) ^a	46.1	63.9	
Knew the attacker (% yes) ^a	29.8	42.3	
Knew attacker by sight or reputation only ^a (% of yes)	51.2	26.9	
Attacker was a casual acquaintance ^a	35.2	50.0	
Knew attacker well ^a	13.6	23.1	
Attacker was a member of a gang (% yes) ^a	15.7	28.7	
Others present during assault (% yes) ^a	65.2	35.5	
Other inmates but no staff (% of yes)	34.6	25.0	
Other inmates and staff	29.6	29.5	
Staff but no other inmates	35.9	45.5	
Knew why you were attacked (% yes)	30.8	29.0	
Was attack motivated because of your ... (% yes)			

Interpersonal Context Characteristics		Victims of Assault	
Inmate-on-Inmate Assaults		Physical (<i>n</i> = 1,315)	Sexual (<i>n</i> = 106)
Race or ethnicity (% of yes)		51.5 ^b	42.9
Religion		18.2	24.4
Sexual orientation ^a		2.8	11.8
Mental illness or disability ^a		6.4	16.0
Weapon was involved in the attack (% yes)		30.4	38.6
Knife or shank (% of yes)		21.2	20.0
Bat or board		13.8	12.5
Gun or Taser		52.1	37.5
Some other object		12.9	30.0

Percents are based on valid numbers.

^a Statistically significant difference between physical and sexual assault using chi-square test ($p < .05$).

^b Percents do not add to 100 because multiple responses were possible.

Table 6**Consequences of Physical and Sexual Assaults by Perpetrator, 2005**

Consequences	Victims of Assault	
	Physical (<i>n</i> = 1,315)	Sexual (<i>n</i> = 106)
Inmate-on-Inmate Assaults		
Any physical injuries (% yes) ^a	40.4	66.7
Stab wounds (% of yes)	10.9	11.1
Broken bones	2.7	3.0
Internal injuries ^a	3.9	14.1
Knocked unconscious ^a	6.1	14.1
Broken or knocked out teeth	4.3	5.1
Bruises, cuts, scratches	29.6	29.3
Anus or throat	NA	24.2
Received medical attention (% yes)	33.7	30.8
Had clinic visit (% of yes)	64.3	65.0
Stayed overnight in medical unit	14.0	30.0
Sent outside to hospital	21.6	5.0
Emotional reactions to assault (% yes—not none) ^a	88.0	96.9
Anger ^a	68.3	49.0
Shock ^a	20.6	39.8
Fear ^a	27.4	44.9
Difficulty sleeping ^a	28.6	49.0
Crying ^a	9.1	40.8
Flashbacks ^a	19.9	33.7
Depression ^a	27.4	53.1
Nightmares ^a	13.2	45.9
Staff-on-Inmate Assaults	Physical (<i>n</i> = 1,466)	Sexual (<i>n</i> = 138)
Any physical injuries (% yes)	48.5	53.3
Stab wounds (% of yes)	3.8	3.3
Broken bones	3.1	4.2
Internal injuries ^a	7.6	16.7
Knocked unconscious	10.3	14.2
Broken or knocked out teeth	4.9	3.3
Bruises, cuts, scratches	35.2	26.7
Anus or throat	NA	20.0
Received medical attention (% yes)	21.5	30.2
Had clinic visit (% of yes) ^a	70.6	47.4
Stayed overnight in medical unit ^a	14.0	47.4
Sent outside to hospital ^a	15.4	5.3

Consequences	Victims of Assault	
	Inmate-on-Inmate Assaults	
	Physical (<i>n</i> = 1,315)	Sexual (<i>n</i> = 106)
Emotional reactions to assault (% yes—not none)	89.8	88.5
Anger ^a	74.2	54.1
Shock ^a	22.5	36.9
Fear ^a	32.0	43.4
Difficulty sleeping ^a	28.8	40.2
Crying ^a	10.8	34.4
Flashbacks ^a	22.3	37.7
Depression ^a	29.6	48.4
Nightmares ^a	14.9	49.2

Percents are based on valid numbers.

^a Statistically significant difference between physical and sexual assault using chi-square or Fisher's exact test ($p < .05$).

Table 7

Emotional Responses to Physical and Sexual Assaults by Perpetrator, 2005

Consequences	Victims of Assault			
	Physical (n = 1,315)		Sexual (n = 106)	
	Any Physical Injury		Any Physical Injury	
	Yes (n = 504)	No (n = 733)	Yes (n = 64)	No (n = 32)
Inmate-on-Inmate Assaults				
No emotional response	7.5% ^a	14.5	3.1	3.1
At least one emotional response	89.7% ^a	83.4	96.9	96.9
Number of emotional responses	2.6 ^a	1.9	3.9	3.1
Type of emotional response				
Anger	66.3	70.7	48.4	50.0
Shock	24.2 ^a	18.6	43.8	34.4
Fear	34.3 ^a	23.2	48.4	40.6
Difficulty sleeping	35.9 ^a	24.2	51.6	43.8
Crying	14.1 ^a	5.7	45.3	31.3
Flashbacks	26.2 ^a	16.0	35.9	31.3
Depression	35.5 ^a	22.1	54.7	50.0
Nightmares	21.4 ^a	7.6	57.8 ^a	25.0
	Physical (n = 1,466)		Sexual (n = 138)	
	Any Physical Injury		Any Physical Injury	
Staff-on-Inmate Assaults	Yes (n = 651)	No (n = 689)	Yes (n = 61)	No (n = 54)
No emotional response	5.5 ^a	14.2	6.6	16.7
At least one emotional response	94.5 ^a	85.8	93.4	83.3
Number of emotional responses	2.9 ^a	1.9	3.9 ^a	2.8
Type of emotional response				
Anger	74.7	74.9	57.4	50.0
Shock	27.5 ^a	18.4	39.3	33.3
Fear	42.1 ^a	22.9	49.2	35.2
Difficulty sleeping	37.2 ^a	21.2	47.5	33.3
Crying	16.7 ^a	5.4	41.0	25.9
Flashbacks	30.3 ^a	15.0	41.0	35.2
Depression	38.9 ^a	21.0	55.7 ^a	37.0
Nightmares	22.6 ^a	8.0	62.3 ^a	33.3

Percents are based on valid numbers.

^aStatistically significant difference between physical injury and no physical injury group using chi-square or Fisher's exact test ($p < .05$).

Table 8**Precautions Taken Post-Assault by Perpetrator, 2005**

Type of Precaution (% Yes)	Victims of Assault	
Inmate-on-Inmate Assaults	Physical (n = 1,315)	Sexual (n = 106)
Joined a gang ^a	5.2	11.3
Carried a weapon	27.6	25.8
Fought more	20.8	15.5
Bulked up	28.0	23.7
Avoided certain areas	34.5	40.2
Avoided certain inmates	49.5	40.2
Kept to self more ^a	55.0	43.3
Stayed in cell more ^a	30.9	43.3
Transferred to administrative segregation	3.4	7.2
Agreed to demands of attacker ^a	4.4	12.4
Requested protective custody ^a	2.7	11.3
Joined a religious group	5.8	10.3
Requested to transfer to another facility ^a	13.8	25.8
None	13.7	18.6
Staff-on-Inmate Assaults	Physical (n = 1,466)	Sexual (n = 138)
Joined a gang ^a	4.1	9.2
Carried a weapon ^a	17.6	29.2
Fought more	11.1	16.7
Bulked up	22.9	28.3
Avoided certain areas	30.2	29.2
Avoided certain inmates	22.1	24.2
Kept to self more	40.8	45.0
Stayed in cell more	28.4	33.3
Transferred to administrative segregation ^a	3.6	8.3
Agreed to demands of attacker ^a	4.2	8.3
Requested protective custody ^a	1.9	6.7
Joined a religious group	3.7	7.5
Requested to transfer to another facility ^a	17.7	32.5
None	24.0	18.3

Percents are based on valid numbers.

^a Statistically significant difference between physical and sexual assault using chi-square or Fisher's exact test ($p < .05$).

Table 9

Precautions Taken Post-Assault by Physical Injury and Perpetrator, 2005

Type of Precaution (% Yes)	Victims of Assault			
	Physical (n = 1,315)		Sexual (n = 106)	
	Any Physical Injury		Any Physical Injury	
	Yes (n = 504)	No (n = 733)	Yes (n = 64)	No (n = 32)
Inmate-on-Inmate Assaults				
Joined a gang	7.7 ^a	3.3	14.1	6.3
Carried a weapon	35.5 ^a	22.2	29.7	18.8
Fought more	27.4 ^a	16.3	18.8	9.4
Bulked up	32.5 ^a	25.4	26.6	18.8
Avoided certain areas	36.9	32.9	43.8	34.4
Avoided certain inmates	50.4	49.4	45.3	31.3
Kept to self more	55.6	54.8	43.8	43.8
Stayed in cell more	36.3 ^a	27.6	43.8	43.8
Transferred to administrative segregation	6.0 ^a	1.6	7.8	6.3
Agreed to demands of attacker	8.3 ^a	1.9	17.2 ^a	0
Requested protective custody	4.8 ^a	1.2	15.6	3.1
Joined a religious group	7.5 ^a	4.8	10.9	9.4
Requested to transfer to another facility	18.9 ^a	10.6	31.3	15.6
None	8.9 ^a	16.6	12.5 ^a	31.3
	Physical (n = 1,466)		Sexual (n = 138)	
	Any Physical Injury		Any Physical Injury	
Staff-on-Inmate Assaults	Yes (n = 651)	No (n = 689)	Yes (n = 61)	No (n = 54)
Joined a gang	5.8 ^a	2.2	11.5	5.5
Carried a weapon	21.4 ^a	14.1	39.3 ^a	18.2
Fought more	15.6 ^a	7.0	24.6 ^a	7.3
Bulked up	26.8 ^a	18.7	36.1	20.0
Avoided certain areas	34.8 ^a	26.5	32.8	25.5
Avoided certain inmates	24.6 ^a	19.5	29.5	20.0
Kept to self more	43.2	39.5	45.9	45.5
Stayed in cell more	32.0 ^a	25.8	41.0	25.5
Transferred to administrative segregation	5.5 ^a	1.9	13.1	3.6

Type of Precaution (% Yes)	Victims of Assault			
	Physical (<i>n</i> = 1,315)		Sexual (<i>n</i> = 106)	
	Any Physical Injury		Any Physical Injury	
	Yes (<i>n</i> = 504)	No (<i>n</i> = 733)	Yes (<i>n</i> = 64)	No (<i>n</i> = 32)
Inmate-on-Inmate Assaults				
Agreed to demands of attacker	6.9 ^a	1.8	9.8	7.3
Requested protective custody	2.8 ^a	1.0	9.8	3.6
Joined a religious group	5.4 ^a	2.1	8.2	5.5
Requested to transfer to another facility	24.1 ^a	12.5	37.7	25.5
None	15.3 ^a	31.9	8.2 ^a	30.9

Percents are based on valid numbers.

^aStatistically significant difference between physical injury and no physical injury group using chi-square or Fisher's exact test ($p < .05$).

Table 10

Precautions Taken Post-Assault by Emotional Response and Perpetrator, 2005

Type of Precaution (% Yes)	Victims of Assault			
	Physical (n = 1,315)		Sexual (n = 106)	
	Any Emotional Response		Any Emotional Response	
Inmate-on-Inmate Assaults	Yes (n = 1,104)	No (n = 147)	Yes (n = 94)	No (n = 3)
Joined a gang	5.4	2.0	11.7	0 ^b
Carried a weapon	29.9 ^a	10.2	26.6	0
Fought more	21.7	15.0	16.0	0
Bulked up	29.8 ^a	16.3	24.5	0
Avoided certain areas	37.4 ^a	13.6	41.5	0
Avoided certain inmates	53.4 ^a	21.8	41.5	0
Kept to self more	58.6 ^a	27.9	44.7	0
Stayed in cell more	33.5 ^a	12.2	44.7	0
Transferred to administrative segregation	3.7	0.7	7.5	0
Agreed to demands of attacker	5.1 ^a	0	12.8	0
Requested protective custody	3.0	0.7	11.7	0
Joined a religious group	6.4 ^a	2.0	10.6	0
Requested to transfer to another facility	15.2 ^a	4.8	26.6	0
None	9.6 ^a	43.5	16.0 ^a	100
	Physical (n = 1,466)		Sexual (n = 138)	
	Any Emotional Response		Any Emotional Response	
Staff-on-Inmate Assaults	Yes (n = 1,208)	No (n = 133)	Yes (n = 106)	No (n = 13)
Joined a gang (% yes)	4.4 ^a	0.8	10.4	0
Carried a weapon	19.1 ^a	3.0	32.1	7.7
Fought more	12.1 ^a	3.0	18.9	0
Bulked up	24.5 ^a	8.3	32.1 ^a	0
Avoided certain areas	32.6 ^a	12.0	33.0 ^a	0
Avoided certain inmates	22.9 ^a	14.3	27.4 ^a	0
Kept to self more	43.6 ^a	19.6	49.1 ^a	7.7
Stayed in cell more	30.9 ^a	8.3	37.7 ^a	0
Transferred to administrative segregation	4.0	0.8	9.4	0

Type of Precaution (% Yes)	Victims of Assault			
	Physical (<i>n</i> = 1,315)		Sexual (<i>n</i> = 106)	
	Any Emotional Response		Any Emotional Response	
	Yes (<i>n</i> = 1,104)	No (<i>n</i> = 147)	Yes (<i>n</i> = 94)	No (<i>n</i> = 3)
Inmate-on-Inmate Assaults				
Agreed to demands of attacker	4.6 ^a	0.8	9.4	0
Requested protective custody	2.1	0.8	7.6	0
Joined a religious group	3.7	3.0	8.5	0
Requested to transfer to another facility	19.2 ^a	5.3	35.9	7.7
None	20.0 ^a	58.7	11.3 ^a	76.9

Percents are based on valid numbers.

^a Statistically significant difference between emotional response and no emotional response group using chi-square or Fisher's exact test ($p < .05$).

^b Percents are not reliable to report because there are fewer than five cases.